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(54) **PRESCRIPTION GLASSES WITH EYE GAZE TRACKING AND ELECTRO OPTICAL SIGNALING TO A HMD**

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(57) **ABSTRACT**

Systems and methods for tracking gaze information of a user includes detecting, by a sensor of a head mounted display, that a user is wearing the HMD. An encoded signal indicative of glasses being worn with the HMD, by the user, is detected by the sensor of the HMD. In response to processing the encoded signal, a gaze detection function of the HMD is disabled by the HMD. Encoded gaze data transmitted by the glasses is received by the HMD. The encoded gaze data is processed by an image frame processor and used to adjust image frames produced for rendering on a display screen of the HMD.